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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10 051,429	01 17 2002	John P. Brostrom	M-11947 US	9051

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EXAMINER

STAHL, MICHAEL J

ART UNIT PAPER NUMBER

2874

DATE MAILED: 05 15 2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/051,429

Applicant(s)

BROSTROM ET AL.

Examiner

Mike Stahl

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-21 is/are rejected.
- 7) ☒ Claim(s) 5,6 and 11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other

Art Unit: 2874

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 18-21 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 18 is a single means claim since it recites a means not in combination with an element of the means. Its scope includes every conceivable means for mounting a transceiver housing to a board, such that a portion of the housing is above a plane of the board and another portion of the housing is below a plane of the board. Thus it includes means which have not been described in the present specification (MPEP 2164.08 (a); *In re Hyatt*, 218 USPQ 195). Claims 19-21 are rejected by dependence from claim 18.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As written, claim 11 is indefinite because it depends from itself. It appears that claim 11 should depend from claim 1.

Art Unit: 2874

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 7-9, and 18-21 are rejected under 35 U.S.C. 102(a) as being anticipated by Jones et al. (US 6287128).

Jones discloses an optical transceiver comprising a housing **31** mountable on a board **5** with a portion of the housing above a plane of the board (say, the center plane) and a portion of the housing below the board (figs. 1, 2, and 4A). The housing **31** receives an optical transmitter **42** and an optical receiver **41** to provide the transceiver functionality (col. 3 lines 20-37). Thus the Jones module anticipates claim 1.

As to claims 2 and 3, the housing **31** includes a notch **310** which is part of a notch and rail system. The edges of board **5** act as rails relative to notches **310** (claim 1 / col. 6 lines 22-28).

As to claim 4, the housing also includes a rail **35** which engages a notch **15**.

As to claim 7, the notch and rail system is located on the sides of the housing **31**.

Art Unit: 2874

As to claim 8, the housing includes a securing mechanism **33** to hold the housing in place against the board (mechanism **33** engages slit **500** of the board). As to claim 9, the securing mechanism **33** may be regarded as a spring clip since it has a clipping action and is inherently somewhat resilient.

The Jones module as described above includes all the limitations of claims 18-20. As to claim 21, the module also includes heat dissipating means since metal cover **8** would conduct heat to the exterior of the module.

Claims 1-3, 7-8, 10, 12-13, and 18-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Hartman et al. (US 5230030).

Hartman discloses an optical transceiver including a housing **22** mountable on a base **15** (which itself partly comprises a printed circuit board), with a portion of the housing above a plane of the board and another portion of the housing below a plane of the board, as required by claim 1 (fig. 1).

As to claims 2 and 3, the corners of housing **22** are effectively rails which engage a notch **20** of the base.

As to claim 7, the notch and rail system is located on a side of the housing **22** (i.e., the connection side).

As to claim 8, the housing **22** has a securing mechanism, by virtue of its shape, to hold the housing in place against the board **15**.

As to claim 10, the housing **22** has a wedge shape.

Art Unit: 2874

Regarding claims 12 and 13, the elements described above in relation to claims 1-3, 7, 8, and 10 constitute a posteriorly located attachment mechanism which holds the housing in place in a cutout (keyway **20**) of the board.

Claims 18-20 are satisfied by elements of Hartman which were already described. The transceiver also includes heat dissipating means (e.g., its outer surfaces) as required by claim 21.

Claims 1, 16-18, 20, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Chan et al. (US 6508595).

Chan discloses an optical transceiver including a housing **27** mountable on a board **18** with a portion of the housing above a plane of the board (e.g., its upper surface) and a portion of the housing below a plane of the board (fig. 1). The lower edges of the housing contact a laminate board **93**, but laterally surround the edges of an overmold frame **18** which is also a board. Thus the Chan transceiver anticipates claims 1 and 18.

As to claims 16 and 21, the housing **27** itself is a heat sink. As to claim 17, the heat sink includes fins **90**.

As to claim 20, the transceiver includes a means (at least web **68**) for securing the housing against board **18**.

Art Unit: 2874

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartman et al. (cited above).

Hartman does not describe the latch arm or screw mechanisms of claims 14 and 15. However, Hartman does acknowledge the need to properly align the housing **22** relative to board **15** and to secure the aligned state once it has been established (col. 3 lines 49-63). Accordingly it would have been obvious to a person of ordinary skill in the art to use any well-known releasable attachment device, including latch arms or screws, to hold the housing in its correctly aligned position relative to the base.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Allowable Subject Matter

Claims 5, 6, and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and if claim 11 is suitably amended to overcome the above rejection under 35 U.S.C. 112 second paragraph.

As to claims 5 and 6, none of the cited references shows or suggests an optical transceiver which has all the features of claims 1 and 2 in combination with an adjustable notch height.


Regarding claim 11, the applied references do not disclose or suggest a transceiver in accordance with claim 1, and further meeting the requirements that the board is mounted to an enclosure having a face plate, and that the housing further includes a screw hole to receive a screw which passes through the face plate. The closest cited reference is Keeble et al. (US 2002/0131730), which discloses an enclosure **30** with a face plate **32**. A transceiver module **1** which meets many of the presently claimed limitations has a housing with screw holes near arms **20** and **22**, such that screws **41** can secure the transceiver to the enclosure (figs. 2, 3, 5, and 6). However, it is noted Keeble et al. does not qualify as prior art since its corresponding application was filed one day after the present application.


Art Unit: 2874

Conclusion

The references made of record and not relied upon are considered pertinent to applicant's disclosure. US 2002 0131730 (mentioned above) and US 2003 0002823 do not qualify as prior art but disclose highly pertinent subject matter. US 6213651, US 5561727, US 5416872, US 5155784, and US 4807955 disclose relevant arrangements for coupling optical module housings to circuit boards.

Any inquiry concerning this communication should be directed to Mike Stahl at (703) 305-1520. Official communications eligible for submission by facsimile may be faxed to (703) 308-7724 or (703) 308-7722. Inquiries of a general or clerical nature (e.g., a request for a missing form or paper, etc.) should be directed to the Technology Center 2800 receptionist at (703) 308-0956 or to the technical support staff supervisor at (703) 308-3072.


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Patent Examiner
Art Unit 2874


AKM ENAYET ULLAH
PRIMARY EXAMINER

April 21, 2003